

DECLARATION.

A revised declaration is enclosed . It is hoped that this meets the requirements.

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Kindly amend this application as follows;

1. DRAWINGS

Revise drawings , sheets 1/10, 3/10/ and 5/10 are attached. These are all marked REPLACEMENT SHEETS. It is believed these comply with the requirements.

The comments regarding the showing of an "opening" are believed to be met by the feature 38 in Fig 1 , Fig 4, and Fig 6.

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38 represents a slit OR SLOT . This is punched through the sheet metal across the depression 36. This is described in the disclosure page 11 line 20 .

2.SPECIFICATION.

Page 10 lines 15 to 21

Cancel entire para starting at "Referring to...

And ending at,sheet metal."

And insert the following

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"Referring to Fig 1 it will be seen that the invention is there illustrated in the form of a stud (10) , formed of sheet metal, in this case steel. The stud (10) has a web (12) which is essentially planar, and edge flanges (14) along each side edge of the web (12) . Each of the flanges is formed by bending the web at right angles. Lips (16) are formed on each edge flange (14) , again at right angles. In the web (12) web openings (18) are formed by punching out a portion of the sheet metal."

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Page 13 line 1 to 5,

cancel entire paragraphs starting at "Many features.....

and ending atshape as in Fig 5"

And insert the following.

"Many features of the studs of Fig 1 and or 8, are also adaptable to forming a stud for use in reinforcing thin shell concrete panel construction..

Such a stud (70) is shown in Figs 12 , 13 , and,14.

Stud (70) has a web (72) , and angled edge flanges (74) as in Fig 8. Stud (70) has openings (76) of quadrilateral shape as in Fig 8."

Page 14 line 1 to 24 delete entire passage
starting at "Stud (100) has a web.....
and ending atsomewhat more wasteful."

And insert the following :

"Stud (100) has a web (102) and identical edge flanges (104) along either side of the web. Flanges (104) are bent at an angle to the plane of the web. Integral planar walls (106) extend from flanges (104) normal to the plane of the web. Bracing walls (108) extend integrally from walls (106) and are bent inwardly complementary to the angle of flanges (104) . Walls (106) terminate in angled lips (110) which contact and lie against the web (102) . Lips (110) are bent into an L-shape and extend normal to the plane of the web (102) . Openings (112) are formed through web (102) as before, being of quadrilateral shape as in the Fig 8 embodiment, and having edge rims or flanges (114) formed therearound as before . Linear side edges (116) and (118) of opening (112) are defined by flaps (120) of sheet metal, extending integrally from flanges (114) for purposes to be described, thus retaining more of the metal removed by the opening (112) and employing it to improve the stud , rather than discarding it as waste.
Flaps (120) are folded back on themselves to capture adjacent lips (110) on walls (108) . Thus each side of the stud is formed with a continuous triangular tube for great strength, and the free edge of each tube is captured and held, at intervals, by integral flaps struck out from the openings. More metal. is retained in the stud, which both increases its strength, or in the alternative permits a reduction in gauge, without in any way increasing the heat losses through the stud. Ridges are formed in flanges (104) and walls (108) for greater strength. Depressions, and slotted openings (not shown) may be formed in the web, as described above to further reduce heat losses. This form of stud may have even greater strength than the Fig 8 stud in certain circumstances. However it will be seen that it does require the use of a wider web initially. The bracing walls are formed integrally with the edge flanges and planar walls. This means that it will require a wider strip to start with to have sufficient metal to form these walls. Conversely this embodiment retains somewhat less of the metal blanked out from the opening, and is therefor somewhat more wasteful."

Page 15 lines 9 to 15

delete whole paragraph starting at "Each stud.....
And ending atreinforces the stud."

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And insert

"Each stud (132) has a web (134) . One side edge of the web is straight. It has a continuous edge flange (136) bent at an angle to web (134) as in Fig 10. A planar tube wall (138) extends from flange (136) . The free edge of wall (138)

is turned back at an angle complementary to flange (136) to provide a ridged wall (140) . The flange (136) wall (138) and wall (140) together form a triangular cross-section tube axially along one side of the web which greatly reinforces the stud.

Page 17 line 6 to line 7

delete whole paragraph starting at "Figs 20 and 21.....
And ending atflanges (174)"

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and insert

"Figs 20 and 21 show a further embodiment . In this case stud (170) is similar to the studs of Fig 1 having a web (172) and flanges (174)."

In the claims.

Cancel the claims on file and insert the claims as amend in the attached claims listing

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REMARKS.

Informalities ;

The rejection of Claim 20 is believed dealt with in the amended claims now filed.

Double patenting;

The provisional objection based on 11/652073 is believed to warrant reconsideration.

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'O73, claims in part as follows;

"

1. A reinforced indented sheet metal stud (10) for use in construction and having a web (12) defining side edges and an axis, a first flange (14) along one side edge, and a second flange (16) along the other side edge, said web and said flanges defining inside surfaces and mounting surfaces opposite one another, and **being characterized by; longitudinal indented ribs (20) formed along at least one of said first and second flanges, parallel to said web axis and, wherein said indented ribs in said flanges are formed as depressions from said mounting surface extending into said inside surface, to avoid obstruction of said mounting surfaces of said flanges.**

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2. A reinforced indented sheet metal stud (10) as claimed in claim 1, being further characterized by two said flanges (14, 16) bent at right angles to said web (12) and

longitudinal indented ribs (20) in both said flanges.

3. A reinforced indented sheet metal stud as claimed in claim 1 being further characterized by depressions (28) formed in said web (12) at spaced intervals, and openings (30) formed in said depressions.

4. A reinforced indented sheet metal stud as claimed in claim 1 being further characterized by having an embedment edge (16A, 34) which is formed along one said flange, for embedment in concrete.

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5. A reinforced indented sheet metal stud as claimed in claim 1 being further characterized by openings (24) through said web at spaced intervals therealong, of predetermined size and profile, at least a side portion (25) of said web displaced from said opening remaining attached integrally to said web, a first bend formed in said side portion, a second bend formed in said side portion spaced from said first bend, said first and second bends being formed along axes parallel to said web axis to define reinforcing channels.

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6. A reinforced indented sheet metal stud as claimed in claim 5 being further characterized by a cross brace member (70) having fastenings (72, 74) with a snap-in engagement for insertion into said web openings. “

All claims in '073 are limited to ;

“characterized by; longitudinal indented ribs (20) formed along at least one of said first and second flanges, parallel to said web axis and, wherein said indented ribs in said flanges are formed as depressions from said mounting surface extending into said inside surface, to avoid obstruction of said mounting surfaces of said flanges. “

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This feature is absent in the present invention. In the present application there are no such longitudinal ribs formed in the studs , either as described or as shown in any of the Figures .

The claims in the present application do not claim such longitudinal ribs .

Conclusion. Double patenting does not appear to be an issue as between the present application and '073.

Furthermore, the present application is senior to '073 in filing date.

Therefor if there is still deemed to be a double patenting issue it can be dealt with in the prosecution of '073, once the present application has been issued.

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Provisional objection based on 11/020242.

The claims in application '242 claim generally oval openings through the web.

The present application describes and shows openings that are generally trapezoidal, in shape.

It is believed that double patenting is not an issue as between '242 and the present application.

Furthermore, the present application is senior to '242 in filing date.

10 Therefor if there is still deemed to be a double patenting issue it can be dealt with in the prosecution of '242, once the present application has been issued.

35 USC 102 .

This objection is based on Bodnar 5527625.

'625 shows studs with main opening and ribs. However there are no indentations at the end of each rib.

There are no openings in such indentations.

Applicants in the present application show depressions at each end of each stud, and openings 38 in each depression.

20 '625 shows openings 302 and flanges 304 around the opening. 304 306 does not define a channel shape.

The word channel defines a shape with a U or a three sided configuration.

This is nowhere shown in '625 .

The present application shows a side portion along one side of the opening which is bent twice so as to form two right angle bends for reinforcement.

These features are not shown in '625

These features are claimed in the amended claims filed herewith.

It is believed that these clearly define over .625.

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35 USC 102.

Based on Meyer '217.

The feature referred to as "E" in '217 is a spot weldment . It holds the two sides of the metal together

"E" is not a depression formed in the web .

'217 does not have any such depressions, and does not have openings formed in depressions.

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Reference "F" in '217 points to two different features.

In Fig 1 F points to the strut.

In Fig 2, F appears to point to a flange around the opening C.

In neither figure does F point to an "opening".

35 USC 103.

The objection to claim 26 is based on Bodnar '625

Claim 26 refers to forming the side portions along parallel spaced apart bend lines .

There is no such bending in '625. There the flanges around the opening are bent once . They do not form a three sided shape for reinforcement.

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The objection to claims 1, 6 and 26 are based on Folsom '781.

'781 does not show depressions at each end of each strut.

'781 does not show openings in the depressions.

'781 does not show side portion bent out from the main openings to form reinforcements.

These features are claimed in the claims as amended.

It is believed these claims now define over '781.

Claims 7 and 27 are objected to based on '781, and '871 .

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'781 does not disclose depressions, or slots.

'871 does not disclose depressions or slots.

The openings 41 are simply punched out to reduce weight, apparently for use in construction of the interior of some kind of dirigible, gas filled airship.

In the present application the slots are formed in the depressions to reduce a heat transfer path. The objective is not to remove metal, but on the contrary , to leave metal in the stud , for greater strength, while lengthening the heat transfer path and thereby reduce thermal losses in a building.

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The claims are restricted in this way. It is believed that the claims define over this combination.

Claims 1 and 3, based on '384.

'384 simply discloses openings 2, with flanges 3 and 4 . These flanges are annular.

They could never be formed into a three sided shape for reinforcement .

The opening C is circular. It has no linear side.

'384 does not disclose depressions. It does not disclose slots in the depression.

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It does not disclose a three sided reinforcing shape along a linear side of an opening.

It is believed that the claims as amended define over all the various references and combinations of references for the reasons given above.

10 New claim 37 is added and a claim fee small entity \$26.00 is submitted for the one additional claim.

Reconsideration and allowance is earnestly solicited in view of the foregoing.

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Yours respectfully,

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per:



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